

1. A head-mounted illuminator configured for use with a source of light,
2 comprising:
a housing with a hollow interior having a light-receiving end and a light-
4 projecting end;
an optical fiber carrying light from the source of light into the interior of the
6 housing through the light receiving end;
a Fresnel lens mounted in the light-projecting end of the housing for receiving
8 light from the optical fiber and projecting the light into a field of view, the Fresnel lens
having a two sides, one with a sets of grooves; and
10 wherein the grooves of the Fresnel lens face the interior of the housing.

2. The head-mounted illuminator of claim 1, wherein the light-projecting end
2 of the housing may be moved forward and backward relative to the light-receiving end to
adjust the beam diameter of the light projected into the field of view.

3. The head-mounted illuminator of claim 1, wherein the light-projecting end
2 and the light-receiving end of the housing are connected with a threaded coupling,
enabling the light-projecting end to be moved forward and backward relative to the light-
4 receiving end to adjust the beam diameter of the light projected into the field of view.

4. The head-mounted illuminator of claim 1, wherein the Fresnel lens is
2 made of acrylic.

5. The head-mounted illuminator of claim 1, wherein the light-projecting end
2 of the housing is conical in shape, and terminates with a diameter larger than that of the
light-receiving end.

6. The head-mounted illuminator of claim 1, further including a mechanism
2 for mounting the housing to a wearer's head.

GSC-04502/03
32506sh

7. The head-mounted illuminator of claim 1, further including a mechanism
- 2 for pivotally mounting the housing to a wearer's head.